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Brief Report

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Ethics Reporting Practices in Aging Research From the Arab Region

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Abstract

Objectives: This study aims to assess the extent of ethics reporting practices in aging research from Arab countries. **Methods:** A systematic scoping review of research on aging in 22 Arab countries from seven databases (1994-2013) identified 637 publications warranting institutional ethical approval and 612 publications warranting informed consent. We used multivariable regression analysis to examine variations by time, place, and study characteristics. **Results:** Only 36.6% of articles reported approval from a Research Ethics Committee and 38.7% reported informed consent. Reporting of ethical research practices increased significantly over time and as research collaborations and journal impact factor increased, and when sampling frame included institutionalized participants. In contrast, failure to report ethical research practices was significantly more common in non-English articles and those that did not report a funding source. **Discussion:** Despite gains across time, reporting of ethical research practices remains suboptimal in the Arab region. Further guidelines and capacity building are needed.

Keywords

institutional review, Research Ethics Committee, consent, aging, Arab region

Introduction

As many Arab countries enter the demographic transition toward aging societies, research among older persons has been expanding. However, older individuals are vulnerable subjects in research, requiring special consideration and more sensitivity. Challenges in ensuring responsible research conduct among older adults include, among others, ageism, reduced autonomy because of declines in auditory capacities and cognitive functioning, possible impaired decision-making due to dementia or other neuropsychiatric illnesses, as well as issues of surrogate respondents, all of which raise significant concerns with whether consent can indeed be "informed and voluntary" (Gilbert, Bosquet, Thomas-Antérion, Bonnefoy, & Le Saux, 2017). Although international codes of conduct, guidelines and research ethics literature provide guidance for ethical research conduct (European Commission, 2013; World Medical Association, 2018) and offer leadership on publication ethics for editors and publishers (Committee on Publication Ethics [COPE], 2019; Wager & Kleinert, 2010), clinical realities and social exigencies may have varied impact on the conduct of research, notably among older adults (İlgili, Arda, & Munir, 2014).

Several studies have addressed the intricacies of research with older people. Empirical research has evaluated the recruitment and consent processes, experimenting with various approaches that optimize the capacity to ensure the informed consent of older persons (Cruz-Jentoft, Carpena-Ruiz, Montero-Errasquín, Sánchez-Castellano, & Sánchez-García, 2013). In a review of 45 publications involving nursing home residents, Karlawish, Hougham, Stocking, and Sachs (1999) cautioned researchers of suboptimal levels of reporting of research ethics and noted variations in the level of detail expected across journal requirements. Other reviews have discussed ethical concerns in research involving homebound, demented, hospitalized, and institutionalized geriatric populations (Cohen-Mansfield, Kerin, Pawlson, Lipson,

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& Holdridge, 1988; İlgili et al., 2014; Locher, Bronstein, Robinson, Williams, & Ritchie, 2006).

To date, there has been no structured study that examines the extent of reporting ethical research practices in aging research in the Arab region. In this study, we make use of a large systematic scoping review of the landscape of research produced on the health of older adults in the Arab region (Sibai, Rizk, Costanian, & Beard, 2017) to examine the extent to which authors have adhered to reporting ethical research practices in their publications. We also assess trends in reporting ethical research practices by time, place, and study characteristics, including sampling frame, coauthor collaborations, research discipline, funding, publication language, and journal impact factor.

Method

The Arab region is defined as the 22-member countries of the League of Arab States: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, the Sudan, Syria, Tunisia, UAE, and Yemen. Arab countries were classified into low-, middle-, and high-income countries following the World Bank's (2015) stratification. A systematic search of seven databases, namely the Web of Science, Ovid MEDLINE, SCOPUS, JSTOR, CAIRN, E-MAREFA, and IMEMR, for studies on aging and health of older adults in the Arab region and covering a period of two decades (1994-2013) yielded a total of 10,594 unique records. Following title, abstract and full-text screening, 788 records were retained. Further elements of the study methods, including the detailed search strategy such as search terms, inclusion and exclusion criteria, methods of data abstraction and coding, are published elsewhere (Sibai et al., 2017). For this analysis, studies were further limited to those in which ethical approval or informed consent were necessary, excluding reviews and research using secondary data. This yielded 637 publications warranting institutional ethical approval and 612 warranting informed consent. The discrepancy emerges from epidemiological studies that draw data from medical records archives and require only institutional ethical approval.

The following research descriptors and characteristics were extracted into a database: year of publication, coauthorship attributes (number of coauthors, regional/international collaboration, corresponding author affiliation), sampling frame and population of interest (clinic/hospital, household, nursing homes, and special-interest groups), research discipline (epidemiology/population health, biomedical sciences, others), funding source (mentioned vs. not mentioned), language (English vs. Arabic/French), and the journal impact factor. Ethical research practices were assessed by two indicators: namely, reporting of approval from Research Ethics Committees (REC) and method of participants' informed consent (oral/written/non-explicit). Studies reporting that a waiver was given or that no country or institutional ethical approval mechanisms were available were considered affirmative only when the steps undertaken to ensure ethical conduct were explicitly discussed. Multivariate regression analyses were conducted and odds ratios (ORs) and their 95% confidence intervals (CIs) were reported. *T*-test of significance was used to examine differences in mean journal impact factor between categories of REC review and types of consent. A p value of $<.05$ was considered significant.

Results

A steady increase in the volume of aging research was observed over the study period, with close to 50% of the papers appearing in the last 4 years of the study period (Table 1). Most of the papers were coauthored by two to three researchers (36.1%, median = 3), and two thirds of the corresponding authors' affiliations were institutions in middle- and low-income countries. Research collaboration extended to regional and/or international coauthorship in 22.9% of the publications, favoring international (16.9%) to regional (6.0%) academic collaborations. Close to 63% of the studies were conducted within hospital settings and only 18.2% were biomedical sciences research. More than three quarters of the papers did not mention any funding source (78.2%) and the overwhelming majority were published in English (94.8%).

Approval from an REC and explicit reference to informed consent were reported in 36.6% and 38.7% of the manuscripts, respectively. Findings from the multivariate analyses show that the extent of reporting ethical research practices increased significantly with time and with increasing number of coauthors. When the affiliation of the corresponding author was an institution in a high-income country, only the likelihood of REC approval increased significantly. Compared with other types of sampling frames, studies targeting institutionalized older adults in nursing homes were significantly more likely to report both REC approval and informed consent (OR = 2.57; 95% CI = 1.21-5.43; OR = 2.24; 95% CI = 1.07-4.69, respectively). Articles that were least likely to report ethical research conduct included those that did not mention a funding source (OR = 0.31; 95% CI = 0.19-0.50; OR = 0.31; 95% CI = 0.19-0.50, respectively) and those that were published in languages other than English (OR = 0.17; 95% CI = 0.05-0.63; OR = 0.18; 95% CI = 0.05-0.68, respectively). There were no significant variations in ethical research practices by research discipline or authors' collaborations. Publications that reported REC approval and/or participants' informed consent were significantly more likely to appear in journals with higher impact factors, with those reporting written consent exceeding those reporting oral consent (Figure 1).

Discussion

Despite gains across time, findings indicate that a minority of studies on older adults in the Arab region report ethical

Table 1. Reporting of Ethical Research Conduct by Study Descriptors.

			Reported Research Ethics Committee approval				Reported informed consent			
	Total		Yes				Yes			
	$N = 637$	100.0%	$n = 233$	36.6%	OR[a]	95% CI	$n = 237$	38.7%	OR[a]	95% CI
Publication year										
1994-1999	27	4.2	1	3.7	1.00	—	4	16.7	1.00	—
2000-2004	80	12.6	15	18.8	5.73	[0.69, 47.49]	8	10.4	0.40	[0.10, 1.58]
2005-2009	212	33.3	67	31.6	14.45	[1.84, 113.6]	76	37.1	2.62	[0.80, 8.54]
2010-2013	318	49.9	150	47.2	27.26	[3.50, 212.6]	149	48.7	3.97	[1.23, 12.8]
Number of coauthors										
Sole	103	16.2	15	14.6	1.00	—	18	18.2	1.00	—
2-3	230	36.1	61	26.5	1.76	[0.90, 3.46]	70	30.7	1.59	[0.85, 2.97]
4-5	139	21.8	65	46.8	4.53	[2.23, 9.20]	63	47.7	3.24	[1.67, 6.33]
6 and more	165	25.9	92	55.8	7.07	[3.49, 14.3]	86	56.2	4.66	[2.38, 9.11]
Corresponding author affiliation										
Low- and middle-income country	428	67.7	149	34.8	1.00	—	164	39.0	1.00	—
High-income country	204	32.3	83	40.7	1.64	[1.05, 2.57]	71	38.0	0.96	[0.60, 1.53]
Sampling frame										
Clinic/Hospital	399	62.6	137	34.3	1.00	—	140	36.9	1.00	—
Household	103	16.2	40	38.8	1.06	[0.61, 1.86]	41	39.8	0.79	[0.45, 1.39]
Nursing homes	51	8.0	22	43.1	2.57	[1.21, 5.43]	24	47.1	2.24	[1.07, 4.69]
Others	84	13.2	34	40.5	1.72	[0.96, 3.10]	32	40.5	1.28	[0.71, 2.29]
Research discipline										
Population Health	444	69.7	155	34.9	1.00	—	163	38.2	1.00	—
Biomedical Sciences/Genetics	116	18.2	50	43.1	1.24	[0.75, 2.04]	47	42.0	0.87	[0.53, 1.43]
Others	77	12.1	28	36.4	1.37	[0.71, 2.62]	27	37.0	1.08	[0.56, 2.09]
Authors' collaborations										
Only nationals	491	77.1	165	33.6	1.00	—	165	34.8	1.00	—
Regional/International	146	22.9	63	46.6	0.72	[0.44, 1.16]	72	52.2	1.30	[0.79, 2.12]
Funding										
Mentioned	139	21.8	87	62.6	1.00	—	86	63.2	1.00	—
Not mentioned	498	78.2	146	29.3	0.31	[0.19, 0.50]	151	31.7	0.31	[0.19, 0.50]
Language										
English	601	94.8	230	38.3	1.00	—	234	40.4	1.00	—
Arabic/French	33	5.2	3	9.1	0.17	[0.05, 0.63]	3	10.0	0.18	[0.05, 0.68]

Note. OR = odds ratio; CI = confidence interval.
[a]Multivariate analyses include all variables in the table.

research practices (36.6% for REC approval and 38.7% for informed consent). Better reporting has been documented in medical and epidemiological literature (range 69%-97% for REC approval and 53%-95% for informed consent) (Finlay & Fernandez, 2008; Jacobsen, 2009; Schroter, Plowman, Hutchings, & Gonzalez, 2006), in studies involving nursing home residents (54% and 80%, respectively) (Karlawish et al., 1999), and more recently in studies involving refugees and war-affected populations in the Arab region (48.2% and 53.7%, respectively) (Makhoul, Chehab, Shaito, & Sibai, 2018). Although notable efforts to regulate research ethics have been made in the Arab region in recent years (Alahmad, Al-Jumah, & Dierickx, 2012), many countries continue to lack institutional structures and guidelines for research ethics. Where guidelines do exist, they remain under-developed when compared with their counterparts in high-income countries (Alahmad et al., 2012).

We also found substantial variations in reporting of ethical research practices when study characteristics and journal descriptors are taken into consideration. Studies with more coauthors, written in English, published in journals with higher impact factors and which explicitly report a funding agency were more likely to report ethical research practices. This may indicate a substantial influence of higher coauthorship and the requirements of funders and journals on reporting ethical research practices. Although our finding of significantly higher reporting practices in research conducted in nursing homes compared with other settings may indicate increased vigilance when researching institutionalized older adults, the absolute percentages of reports of ethical research

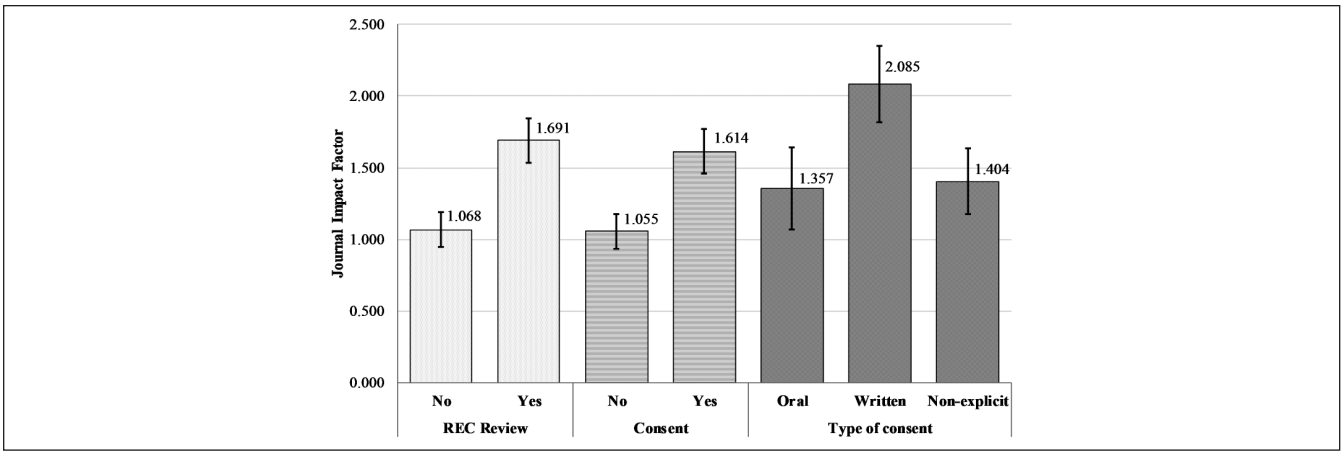

Figure 1. Reporting of REC review and consent by journal impact factor.
Note. Comparisons of mean impact factor between categories of REC approval and consent types were all significant ($p < .001$), except for the comparison between oral and non-explicit consent types ($p > .05$). REC = research ethical committee.

practices (<50%) remain suboptimal and indicate the need to further emphasize the vulnerabilities of older persons in existing research guidelines.

Lack of reporting, however, does not necessarily indicate a lack of adherence to ethical practices among researchers in the Arab region. In many countries of the region, researchers may encounter barriers related to lacking or inadequate research infrastructures. To the extent that REC and the ethical research principles entrenched in the Belmont Report are rooted in Western research traditions, they may not be intuitive in Arab countries where different social and cultural values and norms are embraced (Makhoul et al., 2014). Anthropological research may be needed to identify how health researchers negotiate the tensions between local practices and global ethical research norms. Further research will also need to ascertain whether reporting practices in resource-limited countries are influenced by "cultures" of ethical research conduct, insufficient knowledge among researchers, and/or the extent of research participants' awareness of their rights (Alahmad et al., 2012; Makhoul & Shaito, 2016). There is still much to learn and adapt from international experiences, with debates on case studies that continue to this day (COPE, 2019).

Findings from this study need to be interpreted within certain limitations. Our review is contextualized to aging research in the Arab region, and hence results cannot be extrapolated to other regions or contexts. Furthermore, although our review covered a wide net of search engines that aimed to thoroughly capture research output on older adult populations in the Arab region, it focused on studies addressing health of older Arabs and excluded non-health-focused aging research as well as book chapters and output from the nonacademic literature. Nevertheless, this remains the first study to investigate the reporting of ethical practices in research with older adults in the Arab region.

Notwithstanding these concerns, our observations reinforce the position of the World Health Organization (WHO)-Eastern Mediterranean Regional Office (WHO, 2017) for strengthening research capacity building mechanisms, enhanced vigilance of journal editors for submitted manuscripts, and the need to further support the development of adequate RECs in the region. Trends in the aging of the population in Arab countries will continue to result in increasing engagement and interest in research involving older adults and growing concerns about the extent of oversight and ethical research practice. We hope that this study will provide the evidence base to galvanize discussions around ethical research practices in gerontology research in Arab countries and lead to greater efforts toward developing and improving regulations and guidelines across the region and beyond.

Author Contributions

A.M.S. conceived the study, performed the analyses, and wrote the first draft of the manuscript. T.A. provided guidance in all stages and contributed to interpretation of the results and write-up. W.A.F., J.M., and H.Y.H. contributed to study conception and write-up. S.H. supported in analysis and write-up. A.R. coordinated the study and supported in data extraction, analysis, and write-up. All authors read and approved the final manuscript.

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